

Amendment under Article 34 PCT
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(engl. Version page 2, line 15 to page 4, line 2)

5 This problem is solved by the animal food additive given in Claim 1 or the animal food given in Claim 4 containing the animal food additive.

Lignocellulose is not a cellulose in which the lignin and the ether components, which make up the wood character, were removed by a chemical treatment. Rather, lignocellulose is a mechanically treated wood. This wood is comminuted and, for use in accordance with the invention, is ground in such a way that the fibers are broken down into the fibrils forming them. However, the wood character is thereby retained and they are not cellulose fibrils.

The production of cellulose fibrils and their use in animal foods also are also described in EP 0 819 787 A2; in animal foods with an additive of pure fine-particle cellulose, in WO 02/39 827 A1.

15 The effect of the invention is based on the high and rapid swelling capacity of fibrillated lignocellulose. The food intake can be influenced by the swelling--that is, by the water intake capacity of the food components and their swelling capacity. The food is ingested, swells in the stomach, and provides the animals with a feeling of satisfaction, wherein the nutrient intake remains within limits in spite of free access to the food, and the animal does not become fat.

20 In order for the invention to be particularly suitable, the crude fiber concentrate should have, according to Claim 2, a water retention capacity of 500-800%--that is, a water quantity of 500-800% of its own weight.

A material which can be taken into consideration as a crude fiber concentrate with this characteristic is the product "ARBOCEL" (registered trademark of the Rettenmaier & Söhne GmbH + Co. KG) of the Rettenmaier & Söhne GmbH + Co. KG.

25 ARBOCEL lignocellulose has, with its 500-800%, by far the highest water intake capacity, compared with other crude fiber carriers (for example, wheat bran, ca. 200%; sugar beet scraps, ca. 400%), found on the market.

Another important characteristic of the animal food additive in accordance with the invention is the high swelling capacity. The swelling must, in any case, be carried out to a substantial extent while the food is still in the stomach, because only then does the satisfied feeling caused by the swelling take effect. As a rule, the swelling is completed already after ca. one minute.

The high crude fiber content of the animal food additive permits the attaining of the crude fiber content in the food needed to reach the desired effect by the addition of relatively small quantities of the animal food additive.

5 If the animal food additive according to Claim 3 is compacted, its handling is made easier. No dust is produced during the addition, and uniform mixing into the food is facilitated. Compacting in this connection should mean a compression of fine-particle material to cohesive larger aggregates--for example, a compression in a roll gap to form a flat structure, which is subsequently broken down into small pieces.

10 The invention is also realized in the animal food provided with the animal food additive according to Claim 4.

The fractions of the animal food additive in the total weight of the food can be 0.5-8.0% in accordance with Claim 5. Mostly, however, quantities in the range of 1.0-3.0 wt% are sufficient.

15 It may also be advantageous to pellet the animal food provided with the animal food additive (Claim 6).

20 An important factor with animal foods of the type under discussion is the content of undesired substances in the crude fiber carriers. Traditional crude fiber carriers, such as wheat bran, straw meals, green meals, and so forth, frequently contain substances such as mycotoxins and high microbial burdens. Moreover, higher contents of fermentable, soluble fibrous substances are contained in traditional crude fiber carriers.

25 The lignocellulose to be used in accordance with the invention is free, on the other hand, of mycotoxins, has a very low microbial burden, and, for the most part, contains insoluble crude fibers. Soluble fibrous substances form nutrients and reduce their availability. This involves two disadvantages: The availability of, above all, the microingredients (mineral substances, trace elements, vitamins) is hard to calculate reliably, and the necessary higher addition of these substances on top of this is rather expensive.

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New Claims

- 5 1. Animal food additive for economically useful animals which are pregnant, lactating, being fattened or raised, with a fraction of fibrillated, cellulose-containing fibers, characterized in that it contains a crude fiber concentrate of fibrillated lignocellulose.
- 10 2. Animal food additive according to Claim 1, characterized in that the crude fiber concentrate has a crude fiber content (according to the Weender analysis) of over 60%, a water retention capacity of 500-800%, and such a high swelling capacity that the swelling is carried out to a substantial extent while the food, which does not [sic] contain the animal food additive, is still found in the stomach.
3. Animal food additive according to Claim 1 or 2, characterized in that it is compacted.
- 15 4. Animal food for economically useful animals which are pregnant, lactating, being fattened or raised, with an additive of fibrillated, cellulose-containing fibers, characterized in that it contains an animal food additive according to one of Claims 1 to 5.
5. Animal food according to Claim 4, characterized in that the additive is present in a quantity of 0.5-8.0% of the food.
6. Animal food according to Claim 4 or 5, characterized in that it is pelleted.